

## **STATE OF TN – SOURICING EVENT 34101-11378**

### **SCOPE OF WORK PLANNING LEVEL MAMMAL AND HERPETOFAUNA SURVEY of VOLUNTEER TRAINING SITES – MILAN, SMYRNA, and CATOOSA TENNESSEE ARMY NATIONAL GUARD**

#### **1.0 INTRODUCTION / BACKGROUND**

The Tennessee Army National Guard (TNARNG), as an agent of the National Guard Bureau (NGB), is responsible for the prudent management of natural resources on all of its properties. The largest of these properties, the Volunteer Training Sites (VTS), are managed, in accordance with the Sikes Act and Sikes Act Improvement Amendments, through Integrated Natural Resource Management Plans (INRMP) which guide all activities that may impact natural resources. Up to date baseline survey information on flora, fauna, and abiotic characteristics of the training sites is essential to informed natural resources management. AR 200-1 and National Guard Bureau (NGB) policy require surveys for different species groups on a set interval to develop baseline data, and allow comparison for change in species and communities over time.

The INRMPs which guide management on VTSs Milan, Smyrna, and Catoosa lack adequate detailed information about the mammalian and herpetofaunal communities that inhabit those sites, and may be impacted by TNARNG activities. To fill this data-gap the TNARNG requires a comprehensive survey of the reptile, amphibian, and mammal species that utilize these training sites for part or all of the year. They must be comparable to past survey data and identify changes in these communities. Bat species are being covered under a separate project and do not need to be surveyed. Of particular concern are any species which may be state or federally protected and also any indicator species which could be utilized to monitor environmental conditions on the training sites.

#### **2.0 OBJECTIVE**

The objective of this Scope of Work (SOW) is to provide an in-depth investigative survey to accurately reflect the mammal, reptile, and amphibian species and communities that inhabit VTSs Catoosa, Milan, and Smyrna, and to determine if any are considered rare, threatened, or endangered (RTE) by the Federal or State governments. Bats are surveyed under a different project and do not need to be surveyed as part of this contract.

The following are the specific objectives of this statement of work:

1. A scientific survey of all mammal, reptile, and amphibian species and their communities utilizing the various habitat types of the training sites.
2. Comparison of results with those of previous surveys to identify any change in species and/or communities, suggest possible reasons for change, and make management recommendations to benefit them.

3. Recommendations for management to support species of interest of both federal and state governments that are utilizing the site.
4. Identification of special mammal and herpetofauna habitats on sites and recommendations for their management and improvement;
5. Documentation of all mammalian and herpetofaunal species found on site.
6. Documentation of any mammalian and herpetofaunal RTE species, marking and mapping (GIS) of the point of observation/collection, and any relevant habitat information collected.

### **3.0 SITES**

VTS – Milan (Carroll and Gibson Counties, TN): VTS-M is a 2,466 acre training site in west Tennessee, approximately 20 miles north of Jackson. The site is long (north to south) and narrow and bounded on most of the east side by a state highway. It consists of approximately 1750 acres of forestland, predominantly upland mixed hardwoods with some redcedar and pine stands interspersed and almost 700 acres of managed grassland. There are 220 acres of wetland, mostly forested, and two perennial streams, Halls Branch and Johns Creek. To the west, VTS-M is bordered by Milan Army Ammunition Plant and Wildlife Management Area. Other surrounding lands are primarily farmland.

VTS – Smyrna (Rutherford County, TN): VTS-S is a relatively small site encompassing 858 acres on either side of Stewart Creek and J. Percy Priest Lake in middle Tennessee (22 miles southeast of Nashville, TN). It includes approximately 373 acres of forestland, including redcedar woodlands, mixed evergreen/hardwood forest, and bottomland forest, and 117 acres of managed grassland, as well as 126 acres of cantonment area. The training site is bounded on one side by a municipal airport and lies in a fairly urban environment but also contains several miles of shoreline.

VTS – Catoosa (Catoosa County, GA): This site actually lies in the state of Georgia, approximately 20 miles south of Chattanooga, Tennessee. It encompasses 1,628 acres, including 1,522 acres of forest ecosystem, largely upland mixed oak and also bottomland hardwoods and loblolly pine. There are three blue line streams crossing the site: Tiger Creek and its tributaries, Broom Branch and Catoosa Springs Branch. The upland oak forests on the site are home to a large population of a federally-listed Threatened plant species, large-flowered skullcap (*Scutellaria montana*). The federally Endangered gray bat (*Myotis grisescens*) forages over Tiger Creek. VTS-C is bordered primarily by small rural private landholdings.

### **4.0 MAJOR REQUIREMENTS**

The following tasks must be completed for the Contractor to successfully accomplish the work under this delivery order:

#### **4.1 Task 1: Project Start-Up Meeting**

The Contractor will attend a kick-off meeting with TNARNG representatives at each VTS. At these meetings, the Contractor will be furnished with the most recent environmental information and maps available for the training sites. The meetings will also afford the contractor the opportunity to meet the site staff they will coordinate access with, receive an initial safety briefing, learn the specific coordination and access requirements for each site, and become familiar with the down range areas and their unique conditions. The TNARNG Point of Contact (POC) will be responsible for copying documents in cases where the original cannot be distributed to the Contractor for use during the execution of this SOW. This information will include the following:

- Data from past surveys that included any herpetofauna or mammal information;
- Maps identifying vegetation community types and other environmental characteristics integral to the definition of habitat types; and,
- Current aerial photography.

Whenever possible, this information will be provided to the Contractor in electronic format. The Contractor will be responsible for reviewing all provided data.

***Deliverables:***                      ***Meeting minutes.***

***Performance Period:***        ***Meeting within one month following Notice to Proceed; minutes within two weeks following meeting.***

#### **4.2 Task 2: Submission of Project Work Plan**

The Contractor will submit for review by the TNARNG POC a Project Work Plan detailing the scheduled stages of the project and the proposed methodologies to be used in each phase. The work plan will be completed and approved by the TNARNG POC within one month following the start-up meeting and prior to the initiation of any fieldwork.

The methodology should follow accepted and scientifically defensible standards for herpetile and mammal surveys, and be comparable to results of previous surveys. The goal of this project is a comprehensive planning level survey of these species groups on VTSs Milan, Smyrna, and Catoosa; therefore, the methodology should address the full range of habitat, life history, and seasonality and should not be restricted to a single survey method.

The Contractor will identify habitat types of interest located on the training sites. The sites should be subdivided according to these major habitat types and each habitat type adequately sampled across the physical range of the site. “Training Areas” do not necessarily subdivide the site along ecological boundaries but may be utilized if the resulting breakdown is effective. Sampling locations will be identified in the work plan.

Sample points, sighting locations, and special concern habitats will be recorded via GPS with sub-meter accuracy in the UTM WGS 1984 projection. Files will be compliant with current Corps of Engineers Spatial Data Standards (SDS/FIE). The Contractor must coordinate with the TNARNG GIS office to develop the appropriate data collection format and standards for this

project prior to beginning any field work. The approved data collection format will be included in the work plan.

The Contractor is responsible for contacting the U.S. Fish and Wildlife Service, the Tennessee Natural Heritage Inventory Program, and the Georgia Natural Heritage Program to determine what, if any, threatened or endangered species or other species of special concern could potentially be using the training sites. These species of interest, if any, and the habitat(s) to be searched for them will be identified in the Project Work Plan.

The Contractor is also responsible for obtaining any permits and authorizations that may be required to complete this contract. Copies of all permits will be provided to the TNARNG POC within 30 days of issuance.

***Deliverable:***                      ***Project Work Plan detailing survey methodology, sample locations, and species of special concern.***

***Performance Period:***        ***Three months following Notice to Proceed.***

### **4.3 Task 3: Herpetofauna and Mammal Survey Field Work**

The Contractor will sample the different habitats of the training sites according to the Project Work Plan and in appropriate seasons for herpetofauna and mammal trapping. Training Site access and scheduling of training activities shall be taken into account in planning the sampling schedule.

Access to the site will be provided as necessary to accomplish field work; however, the Contractor must understand that military training activities will receive first priority with regard to scheduling access to Training Areas. It is the Contractor's responsibility to coordinate with the training site on-site POCs to schedule access to each training site.

Species identification will be performed by personnel professionally trained in mammal, reptile, and amphibian identification.

Sampling should be non-destructive (catch and release) as much as possible. Any specimens collected will be provided to a local institution of higher education for archiving and/or educational use, as TNARNG does not have the facilities for storing such collections. Any endangered species collected will be dispersed according to U.S. Fish and Wildlife instruction.

Sample points, sighting locations, and special concern habitats will be recorded via GPS in the UTM WGS 1984 projection utilizing equipment with sub-meter accuracy capabilities following the format determined in consultation with the TNARNG GIS office. Files will be compliant with the current Corps of Engineers Spatial Data Standards (SDS/FIE). Metadata for the GIS files will be complete. Species lists will be recorded in a database format that is compatible with ESRI ArcGIS 10.4.1. All files will be delivered in an editable format; "read-only" files are not acceptable.

The Contractor will make monthly progress reports to the TNARNG POC throughout the execution of this contract. Format of these reports is at the discretion of the TNARNG POC.

**Deliverables:** *Field work and monthly status reports on project progress.*

**Performance Period:** *Complete by Twenty-one (21) months from notice to proceed.*

#### **4.4 Task 4: Preparation and Submission of draft Biological Survey Reports**

Results of the survey will be submitted to the TNARNG POC. Each training site will be written up in a separate report. The reports will include: summary of survey methodology, species list by habitat, discussion of significant finds, map and coordinate table of sample locations, GIS shapefile of sample locations, map and GIS shapefile of species of special concern habitats (if any), and recommendations for management or further study. Field notes, all raw data tables, and field forms will be included as appendices in the reports. The Contractor should review previous surveys conducted at the VTSs, make comparisons, and report if there have been any community or population shifts. Should a community or population shift be noted, possible reasons and management recommendations should be given. For the purpose of creating maps for the reports, the Contractor can obtain any applicable raw GIS data from the TNARNG GIS Office.

The draft reports will be reviewed by TNARNG to insure all needed information is included. The drafts are due twenty-two months from notice to proceed. Two hard copies and one electronic copy of each report should be submitted. All GIS files should be submitted for review at the same time as the draft report. The State POC will return comments within one month of receipt of draft reports.

**Deliverable:** *Draft Biological Survey Reports detailing survey findings and GIS data.*

**Performance Period:** *Twenty-two months from Notice to Proceed (due two months prior to end of contract).*

#### **4.5 Task 5: Preparation and Submission of final Biological Survey Reports**

The Contractor will prepare the final survey reports incorporating the State POC's comments. Three hard-copies and three electronic copies (2 on cd and 1 via DoD SAFE) of each final report will be submitted to the State.

All data collected in the course of the project including field forms, raw data tables, spreadsheets, databases, and GIS files will be provided to the TN Military Department in electronic form. It should be included on the CDs containing the final reports. All GIS data and metadata will be in editable files that can be effectively incorporated into the TNARNG GIS system. Read-only files are not acceptable.

Publication of results from this project is possible with written permission and cooperation from the TN Military Department, Environmental Office. Any manuscript must be reviewed and approved by the State prior to submission for publication.

**Deliverable:** *Final Biological Survey Reports.*

**Performance Period:** *One month following return of TNARNG comments on draft report (due within 24 months of Notice to Proceed).*

## **5.0 GOVERNMENT FURNISHED INFORMATION OR MATERIAL**

The TNARNG shall furnish access to all requested data relevant to this project. This will include topographic maps and environmental data about the sites. The TNARNG will provide access to the installation for the necessary field work; however, the Contractor must schedule their access to each training site through the respective training site POC.

## **6.0 CONTRACTOR REQUIREMENTS AND RESPONSIBILITIES**

The contract work shall be performed by or under the direct supervision of personnel who are professionally qualified in mammal, reptile, and amphibian identification.

The contractor shall obtain all permits and authorizations that may be required to complete this contract. Copies of permits will be furnished to the TNARNG POC within 30 days of issuance. The Contractor shall furnish, except as noted, all labor, materials, equipment, tools, transportation, communications, and supplies required to complete the work in accordance with project specifications, terms of the contract, and this Scope of Work.

The TNARNG POC will serve as the liaison with the training site personnel concerning scheduling of meetings at the facilities. However, it is the Contractor's responsibility to coordinate all other access to the facility through the training site POCs. Access will be provided as necessary to accomplish field work; however, the Contractor must understand that military training activities shall receive first priority with regard to scheduling access to training areas.

All information and data provided by TNARNG to the Contractor is for the purpose of fulfilling this contract. This information is to be protected by the Contractor; it is not to be distributed or utilized for any other purpose under penalty of law.

Upon completion of the Project, the Contractor shall protect and/or return all maps, photographs, specimen materials, studies, surveys, inventories, evaluations, plans, and project reports obtained or collected during the course of the Contract work in accordance with all regulations, laws and statutes. Copies of reports and applicable related materials will be furnished to the TNARNG upon completion of the Contract.

Any specimens collected will be provided to a local institution of higher education for archiving and/or educational use. Any endangered species collected will be dispersed according to U.S. Fish and Wildlife Service instruction.

Publication of results from this project is possible only with written permission and cooperation from the TNARNG Environmental Office. Any manuscript must be approved by the TNARNG POC and the TNARNG Public Affairs Office prior to submission for publication.

## 7.0 DELIVERABLES

All maps, historic documents and other items borrowed from the TNARNG or other contractors under contract to the TNARNG are the property of the TNARNG and shall be returned to the TNARNG upon completion of this Contract.

The deliverables due in fulfillment of this Contract are summarized below. Payment will be made following receipt of deliverables according to the following approximate schedule (payment will not be delayed if a deliverable is provided ahead of schedule):

Time from Notice to Proceed	Deliverable	Payment
1 month	Kick-off Meeting	0
1.5 month	Kick-off meeting Minutes	10%
3 month	Project Work Plan	10%
Throughout	Copies of all permits and authorizations obtained during the course of the contract work	0%
Throughout	Minutes and records of meetings, consultations, and conferences	0%
Throughout	Field work and monthly progress reports	0%
Complete by 21 months	Field Work/Surveys	50%, Increments possible.
22 months	Draft Biological Survey Reports for each site (2 hardcopy and 1 electronic of each report) And, complete survey results in electronic database	10%
24 Months	Final Biological Survey Reports for each site (3 hardcopies; 3 electronic of each report(2 on CD and 1 via DoD SAFE)) And all data in electronic form	20%

## 8.0 MEETINGS AND REVIEWS

Consultations and meetings will be conducted as necessary. At a minimum, this will include:

1. Start-up meeting – on-site, in-person.
2. Review of Project Work Plan – may be conducted in person or via phone/email.
3. Monthly progress report reviews – may be conducted in person or via phone/email.

4. Draft plan review – may be conducted in person or via phone/email.
5. Review of Final Report in person or via phone/e-mail.

## 9.0 POINTS OF CONTACT

The VTS-Catoosa on-site POC for this project is CPT West at (706) 935-4897 ext. 4703 ([brian.l.west24.mil@mail.mil](mailto:brian.l.west24.mil@mail.mil)). All visits to Catoosa by the Contractor should be coordinated through CPT West and SFC Linebarger (706) 935-4897 ext. 4703 ([christopher.s.linebarger.mil@mail.mil](mailto:christopher.s.linebarger.mil@mail.mil)).

The VTS-Milan on-site POC for this project is 1LT Brown at (731) 222-5304 ([andrew.j.brown50.mil@mail.mil](mailto:andrew.j.brown50.mil@mail.mil)). All visits to Milan by the Contractor should be coordinated through 1LT Brown and SGT Marlow (731) 222-5305 ([chad.m.marlow.mil@mail.mil](mailto:chad.m.marlow.mil@mail.mil)).

The VTS-Smyrna on-site POC for this project is CPT Sutherland at (615) 355-3716 ([clinton.b.sutherland.mil@mail.mil](mailto:clinton.b.sutherland.mil@mail.mil)). All visits to Smyrna by the Contractor should be coordinated through CPT Sutherland and MSG Bigham (615) 355-3720 ([tony.c.bigham.mil@mail.mil](mailto:tony.c.bigham.mil@mail.mil)).

The TNARNG Natural Resources POC is Brian Knapp, (615) 313-0945 ([brian.e.knapp.nfg@mail.mil](mailto:brian.e.knapp.nfg@mail.mil)) or Courtney Rogers, (615) 313-0603 ([courtney.a.rogers3.nfg@mail.mil](mailto:courtney.a.rogers3.nfg@mail.mil)).

The TNARNG GIS POC is James “Dave” Meadows at (615) 313-0837 ([james.d.meadows.nfg@mail.mil](mailto:james.d.meadows.nfg@mail.mil)). GIS/GPS requirements must be coordinated in advance through Mr. Meadows.

The TNARNG technical representative under this Contract is Brian Knapp at 615-313-0945. All material submissions are to be sent to Brian Knapp at the following address:

**Tennessee Army National Guard  
JFHQ-TN-FMO-ENV  
ATTN: Brian Knapp  
3041 Sidco Drive  
Nashville, TN 37204-1502**

No TNARNG personnel, other than the Contracting Officer, shall have the authority to change or alter these requirements. The Technical Representative shall clarify technical points or supply relevant technical information, but no requirements in this statement of work or the scope of work may be altered as a sole result of such verbal clarification.

## 10.0 PERIOD OF SERVICE

The Period of service for this contract shall be twenty-four (24) months from notice to proceed.



**- END OF SCOPE OF WORK -**